

RIVERS AND FLOODS

By RICHMOND T. ZOCH

(River and Flood Division, MONTROSE W. HAYES, in charge)

Rains attending the trough of low pressure which crossed that part of the United States east of the Rocky Mountains from March 29 to April 1 caused floods in the Petit Jean River in Arkansas, the Green River in Kentucky, the Rock and Illinois Rivers in Illinois, the Cahaba River in Alabama, and the James River in Virginia, all of which were mentioned in the MONTHLY WEATHER REVIEW for March, 1932. In addition to the above-mentioned floods this trough of low pressure caused floods in the Hoosick and Chenango Rivers in New York; the Susquehanna River in New York and Pennsylvania; the Coosa, Alabama, Black Warrior, and Tombigbee Rivers in Alabama; the Kiskiminetas River in Pennsylvania; the Pigeon River in Tennessee; and the lower Ohio River. While these overflows were widespread none were serious, but on April 21 and 22 there were severe local floods in western Iowa.

In the following statement of flood damage there are included the losses caused by the flood in the lower Mississippi River in February and March. These reports were received too late to appear in the March issue of the MONTHLY WEATHER REVIEW. The Cairo, Ill., district extends from Cape Girardeau, Mo., to New Madrid, Mo.; the Memphis, Tenn., district from New Madrid, Mo., to the mouth of the White River; and the Vicksburg, Miss., district from the mouth of the White River to Vicksburg.

ATLANTIC SLOPE DRAINAGE

Tangible property totally or partially destroyed:	
Connecticut River (Conn.)	\$50
Suspension of business, including wages of employees:	
Connecticut River	600

EAST GULF OF MEXICO DRAINAGE

Tangible property totally or partially destroyed:	
Black Warrior River (Ala.)	5,000
Tombigbee River (Ala.)	300
Pearl River (Miss.-La.)	1,000
Total	6,300
Matured crops: Tombigbee River	200
Prospective crops:	
Tombigbee River	2,400
Chickasawhay River (Miss.)	1,500
Total	3,900
Livestock and other movable property: Tombigbee River	500
Suspension of business, including wages of employees:	
Tombigbee River	7,000
Pearl River	1,000
Total	8,000

MISSISSIPPI SYSTEM

Missouri Basin

Tangible property totally or partially destroyed:	
West Fork of Little Sioux River (Iowa)	68,000
Little Sioux River (Iowa)	36,000
Total	104,000

Matured crops:	
West Fork of Little Sioux River	\$3,500
Little Sioux River	4,000
Total	7,500
Prospective crops:	
West Fork of Little Sioux River	27,000
Little Sioux River	9,600
Total	36,600
Livestock and other movable property:	
West Fork of Little Sioux River	5,800
Little Sioux River	4,480
Total	10,280
Suspension of business, including wages of employees:	
West Fork of Little Sioux River	5,100
Little Sioux River	100
Total	5,200

Ohio Basin

Tangible property totally or partially destroyed:	
Ohio River (Ind., Ohio and Ky.)	1,200
Matured crops: Ohio River	2,000
Prospective crops: Ohio River	11,000
Suspension of business, including wages of employees:	
Ohio River	8,870

Lower Mississippi Basin—Mississippi River

Tangible property totally or partially destroyed:	
Cairo district	10,050
Memphis district	30,275
Vicksburg district	12,500
Total	52,825
Matured crops:	
Cairo district	7,000
Memphis district	43,550
Vicksburg district	8,000
Total	58,550
Prospective crops: Cairo district	4,000
Livestock and other movable property:	
Cairo district	2,000
Memphis district	5,375
Total	7,375
Suspension of business, including wages of employees:	
Cairo district	10,000
Memphis district	5,375
Vicksburg	35,000
Total	50,375

The estimated money value of property saved by warnings was as follows:

ATLANTIC SLOPE DRAINAGE

Connecticut River	\$121,000
Savannah River	500
Total	121,500

EAST GULF OF MEXICO DRAINAGE

Black Warrior River	5,000
Tombigbee River	26,000
Chickasawhay River	1,000
Total	32,000

MISSISSIPPI SYSTEM

Missouri Basin

West Fork of Little Sioux River..... \$12, 000

Ohio Basin

Ohio River..... 10, 250

Lower Mississippi Basin—Mississippi River

Cairo district..... 100, 500

Memphis district..... 77, 000

Vicksburg district..... 50, 000

Total..... 227, 500

Table of flood stages in April, 1932

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
Connecticut:	<i>Feet</i>			<i>Feet</i>	
White River Junction, Vt.....	18	12	14	21.2	13
Holyoke, Mass.....	9	13	14	9.5	14
Hartford, Conn.....	16	10	17	20.5	14
Hoosick: Hoosick Falls, N. Y.....	4	1	1	4.1	1
Chenango: Sherburne, N. Y.....	8	1	1	8.1	1
		3	4	8.6	3
		9	12	8.3	9
Susquehanna:					
Oneonta, N. Y.....	12	1	4	13.3	1
		11	13	12.7	11
Bainbridge, N. Y.....	11	1	4	11.9	3
Harrisburg, Pa.....	14	2	2	14.3	2
James: Columbia, Va.....	10	Mar. 28	3	16.6	Mar. 30
Roanoke: Williamston, N. C.....	9	1	9	10.3	6
		14	17	9.3	16
Santee:					
Rimini, S. C.....	12	12	16	12.5	15
Ferguson, S. C.....	12	15	17	12.0	16, 17
Savannah: Ellenton, S. C.....	14	3	5	16.8	3
EAST GULF OF MEXICO DRAINAGE					
Coosa: Gadsden, Ala.....	20	2	2	20.0	2
Alabama: Millers Ferry, Ala.....	35	4	7	37.8	5
Black Warrior: Lock 10, Tuscaloosa, Ala.....	46	1	2	50.5	1

Table of flood stages in April, 1932—Continued

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
EAST GULF OF MEXICO DRAINAGE—CON					
Tombigbee: Lock 4, Demopolis, Ala.	<i>Feet</i> 39	1	10	<i>Feet</i> 49.8	6
Pearl:					
Edinburg, Miss.	20	3	6	21.8	4
Jackson, Miss.	22	3	13	26.9	8, 9
West Pearl: Pearl River, La.	13	8	11	13.1	10
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Wisconsin: Knowlton, Wis.	12	8	9	13.5	9
Ohio Basin					
Kiskiminetas: Saltsburg, Pa.	8	1	1	8.0	1
Pigeon: Newport, Tenn.	6	1	1	7.5	1
Elk: Fayetteville, Tenn.	14	25	25	14.3	25
Ohio:					
Dam 47, Newburgh, Ind.	35	1	9	38.6	5
Evansville, Ind.	35	1	10	38.8	5
Dam 48, Cypress, Ind.	35	2	9	37.4	6
Mount Vernon, Ind.	35	3	10	37.0	6
Dam 49, Uniontown, Ky.	35	6	9	35.1	7
Shawneetown, Ill.	33	3	12	36.6	7
Dam 50, Fords Ferry, Ky.	32	2	13	36.9	8
Dam 52, Brookport, Ill.	35	4	11	37.0	7
Dam 53, Grand Chain, Ill.	38	4	12	40.6	7
Cairo, Ill.	40	4	12	42.0	9
Arkansas Basin					
Arkansas: Yancopin, Ark.	29	14	21	29.7	18, 19
Lower Mississippi Basin					
Tallahatchie: Swan Lake, Miss.	24	9	19	24.5	12-14
Yazoo: Yazoo City, Miss.	23	Dec. 31	25	31.9	Feb. 21
Ouachita: Monroe, La.	40	Dec. 25	11	49.7	Feb. 2-4
Black: Jonesville, La.	50	Jan. 13	9	55.6	Mar. 5-7
Atchafalaya Basin					
Atchafalaya: Atchafalaya, La.	22	Dec. 27	(1)	24.9	Mar. 3-5
GULF OF CALIFORNIA DRAINAGE					
Colorado: Parker, Ariz.	7	22	30	9.0	27-29

1 Continued into May.

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, W. F. McDONALD in Charge]

NORTH ATLANTIC OCEAN

By F. A. YOUNG

The pressure situation.—As shown in Table 1 there were no unusually large departures recorded at any of the stations. Both the Atlantic high and Icelandic low were fairly well developed during the greater part of the month. The former center of action varied little in intensity, as in Horta there was a difference of only 0.32 inch between the highest and lowest barometric readings. On the other hand, anticyclonic conditions prevailed in the vicinity of Iceland between the 15th and 17th, and again on the 24th and 25th.

At Belle Isle and Halifax there was the usual rapid change in pressure from day to day, while south of Nantucket on the American coast there was less variation.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, April, 1932

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
Julianehaab, Greenland ¹	<i>Inches</i> 30.17	<i>Inch</i> (?)	<i>Inches</i> 30.63		<i>Inches</i> 29.64	25
Reykjavik, Iceland ¹	29.87	+0.07	30.44	17	29.21	13
Lerwick, Shetland Islands ¹	29.60	−0.20	30.29	16	28.63	7
Valencia, Ireland ¹	29.83	−0.06	30.43	12	29.22	3
Lisbon, Portugal ¹	30.09	+0.10	30.45	13	29.59	3
Madeira ¹	30.08	+0.07	30.26	16	29.91	17
Horta, Azores ¹	30.29	+0.14	30.46	2	30.14	16
Belle Isle, Newfoundland ¹	29.92	+0.09	30.42	3	29.12	25
Halifax, Nova Scotia ¹	29.82	−0.11	30.28	30	29.10	17
Nantucket ¹	29.89	−0.08	30.33	5	29.10	12
Hatteras ¹	29.99	−0.02	30.41	4	29.43	11
Bermuda ¹	30.00	−0.09	30.36	30	29.50	22
Turks Island ¹	29.89	−0.03	30.10	15	29.82	22
Key West ¹	29.98	−0.04	30.21	2	29.72	20
New Orleans ¹	30.00	0.00	30.56	2	29.74	10
Cape Gracias, Nicaragua ¹	29.86	−0.11	29.96	13	29.78	18

¹ All data based on a. m. observations only, with departures compiled from best available normals related to time of observations.

² No normal available.

³ And on other date or dates.

⁴ Corrected 24-hour mean, based on more than one observation.